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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/061,786	02/04/2002	Morgan D. Murphy	DP-304694	2218

7590 04/05/2004

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EXAMINER

BROADHEAD, BRIAN J

ART UNIT	PAPER NUMBER
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3661

DATE MAILED: 04/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/061,786	Applicant(s) MURPHY ET AL.	
	Examiner Brian J. Broadhead	Art Unit 3661	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 January 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3-12-04</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norton, 6364352.

3. As per claim 1, Norton discloses comparing a filtered version of said output signal to a threshold having a default value corresponding to a predetermined occupant weight under a given set of conditions, determining a value of a parameter that affects the magnitude of said output signal, adjusting the threshold above or below the default value when the determined value is outside a predetermined range of values, allowing deployment of said restraint when the filtered version of said output signal is above the threshold, and suppressing deployment of said restraint when the filtered version of said output signal is below the threshold on lines 8-24, on column 15, lines 4-16, on column 16, and lines 1-20, on column 17; measuring a vertical acceleration of the vehicle, determining a value of the free mass based on a variation of the signal with respect to a variation of the measure vertical acceleration on lines 2-16, on column 16. Norton does not disclose adjusting the threshold below said default value when the determined value of the free mass is above a predetermined range of free mass values corresponding to an average weight occupant, and adjusting the threshold value above the default value

when the determined value is below the predetermined range of the free mass value.

Norton does disclose adjusting up the value(measured weight) compared to the default threshold value when the determined value of the free mass is above a predetermined range of free mass values corresponding to an average weight occupant, and adjusting down up the value compared to the default threshold value when the determined value of the free mass is below the predetermined range of the free mass value on lines 10-65, on column 21. These two different ways of doing the same thing are equivalents. It would have been obvious to one of ordinary skill in the art at the time the invention was made to adjust the thresholds in Norton instead of adjusting the value compared to the threshold because it is a design choice and they both accomplish the same exact things.

4. As per claim 3, Norton discloses sampling output signal values and computing an average of the sampled values, identifying sampled output signal values that are within a specified percentage of the average, computing a first variance of the identified output signals, computing a second variance of the measured vertical acceleration and determining the value of the free mass according to a ration of the first and second variance on lines 3-43, on column 16.

5. As per claim 5, Norton discloses measuring the tension of the seat belt and adjusting the threshold above the default value when the measures tension is above a predetermined normal range on lines 1-10, on column 7.

6. Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norton, 6364352, in view of Wallace, US 2003/0040858.

7. Norton discloses the limitations as set forth above. Norton does not disclose measuring a vehicle run time and delaying the step of determining the value of the free mass until the measured run time reaches a predetermined threshold; measuring the temperature and adjusting the threshold below the default value when the measured temperature is below a predetermined normal range. Wallace teaches measuring a vehicle run time and delaying the step of determining the value of the free mass until the measured run time reaches a predetermined threshold in paragraphs 250-252; and measuring the temperature and adjusting the threshold below the default value when the measured temperature is below a predetermined normal range in paragraphs 99, 143, and 250. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the delay time and temperature measurement of Wallace in the invention of Norton because such modification would prevent faulty measurements of occupants that are still getting comfortable and environmental changes as stated in Wallace.

#### ***Response to Arguments***

8. Applicant's arguments filed 1-2-04 have been fully considered but they are not persuasive. The argument is that Norton does not determine the mass of a vehicle seat occupant is not convincing because on lines 3-16, on column 16, he discloses his weight sensing system uses an acceleration sensor to account for vertical acceleration and measures the weight when there isn't vertical acceleration which would correspond to the free mass on the occupant. The argument that Norton does not teach adjustment of the deployment threshold is also not convincing. In Applicant's invention, the

threshold is adjusted to reduce the effects of poor measurements. In the invention of Norton, the weight values that are compared to the threshold are adjusted. These are equivalent and do the same thing. For instance, if "X" is the threshold, "A" is the measured value, and "5" is the amount the threshold needs to be adjusted in the Applicant's invention, the process would look like this:

1.  $X+5$  compared to A
2. In the case of Norton it would operate like this:
3. X compared to  $A-5$
4. Lines 10-65, on column 21, of Norton show how his corrected weight(free mass) measurements are adjusted.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Broadhead whose telephone number is 703-308-9033. The examiner can normally be reached on Monday through Thursday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 703-305-8233. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

BJB

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Art Unit: 3661

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